# Comment Form/Formulario Para Comentarios

Cabrillo Port LNG Deepwater Port—Revised Draft EIR Puerto de Aguas Profundas de LNG en el Puerto de Cabrillo—Borrador Revisado del EIR

	or favor proporcionar su nombre y dirección.
Name (Nombre): <u>GAIL TABAC</u>	K_
Organization/Agency (Organizatión/Agencia):	,
Street Address (Calle): 2747 Cha	nnel Drz
City (Ciudad): Venturer 9300	93
State (Estado): Zip Code	(Código Postal):
email address (dirección de correo electrónico):	please don't send fend E15/EIR
	E15/21R
	comments on the reverse noto the comment box.
	escrito en el revés y colóque esta forma I comentario.
You may also address any written comments to the attention of:	Usted puede dirigir también cualquier comentario escrito a la atención de:
Dwight E. Sanders California State Lands Commission Division of Environmental Planning and Management 100 Howe Avenue, Suite 100-South	Dwight E. Sanders California State Lands Commission Division of Environmental Planning and Management 100 Howe Avenue, Suite 100-South

Sacramento, CA 95825

por correo electrónico a: BHPRevisedDEIR@slc.ca.gov

2004021107

Incluir el número de State Clearinghouse:

Los comentarios también se pueden enviar

Sacramento, CA 95825

to: BHPRevisedDEIR@slc.ca.gov

2004021107

Include the State Clearinghouse number:

Comments may also be submitted via email

# 2006/V230

# All comments must be received by 5 p.m. Pacific Time, May 12, 2006

Todos los comentarios debe ser recibido por 5 de la tarde, hora Pacífico, el 12 de mayo de 2006

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V230-1

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

From: Jimy Tallal [mailto:jimy@tvsurveys.com] Sent: Saturday, March 18, 2006 3:34 PM

**To:** BHPRevisedDEIR@slc.ca.gov **Subject:** Comments - LNG Terminal

California State Lands Commission:

I'm e-mailing to express my total opposition to the proposed BHP Billiton Cabrillo Port LNG terminal - especially after the latest government study. I live in Malibu and own a home on a hillside facing the Pacific, therefore the proposed LNG terminal would have a direct impact on my life - I'd be able to see if from my front yard. Here's why I'm opposed:

- 1.) **Smog** The air pollution caused by the ship's boilers was found to be highly significant, and Billiton will not be able to offset this like they promised earlier. We don't need any more air pollution in the L.A. area.
- 2.) **Ugly Visuals** The proposed 14-story high terminal and its fleet of ships will be visible from my house, which is 600 feet up. You only have to go as far as the oil platforms off the coast of Santa Barbara to see how ugly this will be. As I understand it, the LNG terminal is actually disallowed by a California state law prohibiting industrial intrusion on highly scenic areas.
- 3.) Risk of flashfires and explosions They say ship-to-ship LNG transfers have never actually been attempted on the "high-seas," and we're talking about the transfer of a volatile sub-zero liquid. A leak could explode. What's more, the governments' worst -case scenario for explosion danger would put the "avoid zone" for other ships out into the main southbound shipping channel, which is used by about 10,000 ships per day. Billiton's calculations about the range of an explosion only took into account two LNG tanks and 9mph average winds, whereas some groups think an explosion would more likely involve 5 LNG tanks and 15-20 mph average winds, making it much farther reaching.
- 4.) Bad Geology Risk of pipeline breaks in an active earthquake area, which would pollute our coastal waters and kill ocean life.
- 5.) **Noise** Although the report didn't really address this, noise will most likely be a problem. The LNG's huge gas fired boilers as well as ship's engines will be running 24/7, and sound carries across the water quite well especially on quiet nights. The noise will not only affect me, but will be much worse for recreational boaters, not to mention migrating whales, dolphins, etc., who are much closer to the source.
- 6.) **Odor** The foul-smelling and highly flammable odorizing chemical that's used in the LNG process, which also has a danger of spilling or leaking into the water.
- 7.) Wind Even though hundreds of floating rigs broke loose in the Gulf during last Fall's hurricanes, the proposal says that won't happen here, based on maximum wind speeds of 55mph. In my neighborhood, Santa Ana winds have been clocked at well over 70 mph, so I'm not sure the issue of wind has been adequately addressed.
- 8.) Ship Accidents Causing Gas Spills Although Billiton say it's never had an accident, they have actually had 20 accidents over the years. A spill is bound to happen sooner or later. What does it do to water quality and marine life if a spill involves millions of gallons of volatile sub-zero liquids? What does it do to our tourist industry and quality of life? Would Billiton get out of paying the cost pretty much like Exxon did with the Valdez?

Thank you for allowing this opportunity for public commentary. Approving an LNG terminal off the coast of Malibu/Oxnard would not make anyone happy except BHP Billiton!

Jimy Tallal 31510 Anacapa View Dr. Malibu, CA 90265

## 2006/P002

# P002-1

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

### P002-2

| P002-1 Section 4.4 and Appendix F contain information on visual resources, impacts, and mitigation. Appendix F describes how visibility from various distances was evaluated and provides additional simulations prepared for viewpoints at elevated sites along the Malibu coastline and inland areas.

### P002-3

P002-4 The Project has been modified since issuance of the March 2006 Revised Draft EIR. See Section 1.4.2 for a summary of Project changes. Section 4.6.1.3 contains revised information on Project emissions and proposed control measures. Section 4.6.4 discusses the health effects attributed to air pollutants and includes revised impacts and mitigation measures.

### P002-4

- Figure 2.2-1 shows the height of structures above the loaded waterline, which is also discussed in Section 4.4.1.1. Section 4.4 discusses the Projects applicability with the California Coastal Act, which addresses scenic and visual qualities of coastal areas.
  - Table 4.4.2 contains information on the major laws and regulatory requirements for aesthetics that would be applicable to the proposed Project. Section 4.4.4 contains visual simulations of the FSRU. Impact AES-1 contains additional information on the alteration of ocean views that would result from the proposed Project.

# P002-11

P002-9

P002-10

### P002-5

Section 2.1 contains information on design criteria and specifications, final design requirements, and regulations governing the construction of the FSRU. The Cabrillo Port must be designed in accordance with applicable standards, and the U.S. Coast Guard has final approval. Section 4.2.4 contains information on Federal and State agency jurisdiction and cooperation. The Deepwater Port Act specifies regulations that all deepwater ports must meet; Section 4.2.7.3 contains information on design and safety standards for the deepwater port. Section 4.2.8.2 contains information on pipeline safety and inspections. Impact EJ-1 in Section 4.19.4 addresses additional pipeline design requirements in areas of low-income and minority communities. The EIS/EIR's analyses have been developed with consideration of these factors



and regulations and in full conformance with the requirements of NEPA and the CEQA.

### P002-6

The lead agencies directed preparation of the Independent Risk Assessment (IRA), and the U.S. Department of Energy's Sandia National Laboratories independently reviewed it, as discussed in Section 4.2 and Appendix C.

Section 4.2.7.6 and the IRA (Appendix C1) discuss the models and assumptions used and the verification process. Sandia National Laboratories (Appendix C2) concluded that the models used were appropriate and produced valid results.

Section 4.2.7.6 and the Independent Risk Assessment (Appendix C1) contain information on public safety impacts from various incidents at the FSRU. The analysis indicates that the maximum impact distance of an accident would involve a vapor cloud dispersion extending 6.3 nautical miles (7.3 miles) from the FSRU. The FSRU would be located approximately 12.01 nautical miles (13.83 miles) offshore; therefore, consequences of an accident involving LNG transport by carrier and storage on the FSRU would extend no closer than 5.7 nautical miles (6.5 miles) from the shoreline. Figure ES-1 depicts the consequence distances surrounding the FSRU location for worst credible events.

Impact MT-4 in Section 4.3 contains information on the potential effects of an accident with the FSRU or an LNG carrier on marine traffic.

### P002-7

Sections 4.2.8 and 4.11.1 discuss the risk of pipeline rupture due to siesmic events. Section 4.7 discusses potential impacts to marine biology.

### P002-8

Section 4.14.4 addresses the potential effects of noise generated by the FSRU on recreational boaters and Section 4.8.4 addresses the potential effects to marine mammals.

#### P002-9

Section 2.2.2.4, under "Hazardous Materials and Lubricants Management," Natural Gas Odorization discusses the storage, handling and spill mitigation of the natural gas odorant on the FSRU. Operation, Natural Gas Leak, under Impact BioMar-6 in Section 4.7.4 discusses the potential impact to marine organisms caused by the release of odorant along with natural gas resulting



from a leak in the subsea pipelines.

# P002-10

Section 4.1.8.5 discusses wind data from ocean buoys located in proximity to the proposed FSRU location. Factors related to wind would be considered in the final design (see Sections 2.1 and 4.1.8). The Independent Risk Assessment (Appendix C1) and Section 4.2.7.2 discuss the consideration of wind speed and direction on potential accident scenarios.

# P002-11

The effects of an LNG spill are described throughout resource area discussions in the Final EIS/EIR. Section 4.2.5 discusses the Applicant's insurance coverage and cost recovery for incidents. Section 4.2.6 addresses the Applicant's safety record.

To view the responses to this letter, go to "Index--Read this First" and select "2006 Letters--Form Letter."

April 19, 2006

**Dwight Sanders** State lands commission, 100 Howe Avenue Suite 100 South Sacramento California 95825-8202

Re: Stop Cabrillo Port LNG

Dear Mr. Sanders,

Please stop Cabrillo port LNG industrial plant from progressing any further in the permit process. California law prohibits industrial intrusion on highly scenic areas. The last remaining wild areas on the Southern California Coast will be permanently despoiled if this industrial plant is installed. In fact over 10 national parks, national recreation areas, state, city and county parks will be despoiled. This would forever impact the quality of life of the areas residents and negatively impact the millions of vistors who come to hike and enjoy the seashore. In addition, federal and state governments own studies show that this project would:

- result in both short term and long term adverse impacts to the coast and it's residents.
- Increase smog levels (tons of pollutants spewing directly upwind from our houses, beaches and hiking trails.
- contain 14 story high pollution spewing industrial towers with lines of support ships which forever will be our new horizon. This towers will be brightly lit at night being a 24 hour eye sore.
- harbor the possibility of a 14 mile wide explosive flash fire due to an accident of terrorist attack.
- be visible from all elevations in malibu from downtown Malibu all the way to Port Hueneme.
- require a "security zone" of 2.3 miles around it. (to protect from terrorism, accidents etc) which is in the same shipping channel where 10,000. container ships and oil tankers use annually.

There are many more negative impacts than the above "official" ones disclosed by the federal and state study.

PLEASE do not allow this to go forward. We, the citizens of Southern California will fight this project until it is derailed. Our money and time can be spent on projects that truly will improve the quality of life in Southern California rather than just provide an opportunity for foreign Companies to sell us gas that they and we do not need.

Kristine Tata Kristine Tata 137 N. Larchmont Blud. #166 Les Argeles, CA. 90004

To view the responses to this letter, go to "Index--Read this First" and select "2006 Letters--Form Letter."

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There are many more negative impacts than the above "official" ones disclosed by the federal and state study.

PLEASE do not allow this to go forward. We, the citizens of Southern California will fight this project until it is derailed. Our money and time can be spent on projects that truly will improve the quality of life in Southern California rather than just provide an opportunity for foreign Companies to sell us gas that they and we do not need.

Sincerely,

Kamilla Taylor Kamilla Taylor 6457-113 Zuma View Place Melibur CA 90265 28128 Pacific Coast Highway #168 Malibu, CA 90265 310-589-0410 mitchjentaylor@yahoo.com

May 1, 2006

Dwight E. Sanders California State Lands Commission Division of Environmental Planning and Management 100 Howe Avenue Suite 100 South Sacramento, CA 95825

#### Dear Mr. Sanders:

We are writing in opposition to the liquefied natural gas (LNG) port being proposed for off the coast of Malibu. We strongly feel that such a structure would have adverse impacts on both the environment as well as the human community existing within its geographic location.

In particular, we are concerned that the LNG factory would create additional pollution, thus contributing to the growing problem of unclean beaches and water. Surfers and beach goers already experience the negative consequences of swimming in ocean waters saturated with PCH run-off and other pollutants. Why would the California State Lands Commission even consider a structure that would potentially add to this problem? In addition to consequences for humans, marine life would suffer from both the increased pollution as well as the elevated water temperatures surrounding the LNG structure.

Beyond the frightening environmental and health risks, we are also very concerned about the aesthetic factor. Malibu is both home to thousands of people as well as a vacation/recreational destination for countless individuals from the greater Los Angeles area, the state, the country and abroad. It is the beauty of the area that draws these visitors and their coinciding revenue for the state. As homes and commercial buildings continue to be erected on what seems like every available plot of open land, why must we also taint the ocean horizon with human-made structures?

Unfortunately, we know that the power of money and human greed often overshadow both common sense and perspective. We sincerely hope that the California State Lands Commission will see beyond the financial gains of an LNG structure situated off the coast of Malibu and realize that the environmental and aesthetic losses both now and for future generations would extremely outweigh any monetary gains.

It is our hope that you will strongly consider our concerns and those voiced by others when making your decision regarding the LNG structure.

Sincerely,

Jenny E. Rusinko

Metall # Pulor
Mitchell T. Taylor

cc Governor Arnold Schwarzenegger

P307-1

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

P307-2

Sections 4.6.4 and 4.18.4 discuss the Project's potential impacts on air and water quality. Sections 4.7.4 and 4.8.4 discuss the Project's potential effects on the marine and terrestrial environments.

P307-3

Section 4.4 contains information on the visual aspects of the Project, potential impacts, and measures to address impacts. See Impact AES-1 in Section 4.4.4. Appendix F includes additional simulations.

P307-2

P307-3

P307-1

Section 4.15.4 contains information on potential impacts on recreational activities. The FSRU is not located in or near any park or recreational area. The boundary of the Channel Islands National Park is more than 17 NM away at its closest point on Anacapa Island. Table 2.1-2 contains additional information on distances from the FSRU to points-of-interests and the potential expansion of the CINMS. The Santa Monica Mountains National Recreation Area is more than 12 NM away from the FSRU, as are all other State parks and recreations areas. The only recreational facility crossed by the proposed onshore pipelines is the multi-use trail along the South Fork Santa Clara River in Santa Clarita, which would be temporarily affected during construction but restored afterwards.







William L. Terry 250 E. Pleasant Valley Rd. #47 Oxnard, Ca. 93033 805-488-0422

Dwight E. Sanders California State Lands Commission 100 Howe Avenue, Suite 100-South Sacramento, CA 95825

State Clearinghouse number: 2004021107

USCG/MARAD

docket number USCG-2004-16877.

Which of these are a Deep Water Port and which is a Ship or (vessel)? Deepwater ports are non-vessel, fixed or floating manmade structures that are used as ports or terminals for the loading, unloading, or handling of oil for transportation to a state.

"vessel" means every description of watercraft or other artificial contrivance used as a means of transportation on or through the water. "citizen of the United States" means any person who is a United States citizen by law, birth, or naturalization, any State, any agency of a State or a group of States, or any corporation, partnership, or association organized under the laws of any State which has as its president or other executive officer and as its chairman of the board of directors, or holder of a similar office, a person who is a United States citizen by law, birth or naturalization and which has no more of its directors who are not United States citizens by law, birth or naturalization than constitute a minority of the number required

"licensee" means a citizen of the United States holding a valid license for the ownership, construction, and operation of a deepwater port that was issued, transferred, or renewed pursuant to this chapter.

How many of BHP's Board Members are citizens of the United States. Has BHP consulted with the Secretary of the Army, the Secretary of State, and the Secretary of Defense, to determine their views on the adequacy of the application, and its effect on programs within their respective jurisdictions.

This will have a negative effect on our Naval Base here in Ventura County.

for a quorum necessary to conduct the business of the board;

P075-1

Section 1.1.1 states that Federal law defines a deepwater port as any fixed or floating manmade structure other than a vessel, or any group of such structures, that is located beyond state seaward boundaries and that is used or intended for use as a port or terminal for the transportation, storage, or further handling of oil or natural gas for transportation to any state.

P075-2

MARAD is responsible for determining whether the criteria specified in the DWPA are met. The citizenship of BHPB's Board Members is not a topic of environmental analysis. Appendix A contains the distribution list, and Volumes III and IV contain comment letters from Federal agencies.

P075-3

As discussed in Section 4.13.3, the Project would not conflict with existing land uses. Section 4.16 contains information regarding the scope of analysis of socioeconomic impacts as required under the National Environmental Policy Act and the California Environmental Quality Act. Impacts MT-5 and MT-6 in Section 4.3.4 contain information on potential conflicts with U.S. Navy operations.

MARAD/USCG has consulted with, and received comments from, the Department of Defense and specific military agencies. Their comments and suggestions have been incorporated into this document.

P075-2

P075-1

P075-3

# (e) Additional conditions; removal requirements, waiver; Outer Continental Shelf Lands Act applicable to utilization of components upon waiver of removal requirements

(1) In issuing a license for the ownership, construction, and operation of a deepwater port, the Secretary shall prescribe those conditions which the Secretary deems necessary to carry out the provisions and requirements of this chapter <sup>[2]</sup> or which are otherwise required by any Federal department or agency pursuant to the terms of this chapter. <sup>[2]</sup> To the extent practicable, conditions required to carry out the provisions and requirements of this chapter <sup>[2]</sup> shall be addressed in license conditions rather than by regulation and, to the extent practicable, the license shall allow a deepwater port's operating procedures to be stated in an operations manual, approved by the Coast Guard, in accordance with section 1509 (a) of this title, rather than in detailed and specific license conditions or regulations; except that basic standards and conditions shall be addressed in regulations. On petition of a licensee, the Secretary shall review any condition of a license issued under this chapter to determine if that condition is uniform, insofar as practicable, with the conditions of other licenses issued under this chapter, reasonable, and necessary to meet the objectives of this chapter. The Secretary shall amend or rescind any condition that is no longer necessary or otherwise required by any Federal department or agency under this chapter.

### No removal requirements are in this document.

- (2) Each application shall include such financial, technical, and other information as the Secretary deems necessary or appropriate. Such information shall include, but need not be limited to—
- **(A)** the name, address, citizenship, telephone number, and the ownership interest in the applicant, of each person having any ownership interest in the applicant of greater than 3 per centum;
- **(B)** to the extent feasible, the name, address, citizenship, and telephone number of any person with whom the applicant has made, or proposes to make, a significant contract for the construction or operation of the deepwater port and a copy of any such contract;
- **(C)** the name, address, citizenship, and telephone number of each affiliate of the applicant and of any person required to be disclosed pursuant to subparagraphs (A) or (B) of this paragraph, together with a description of the manner in which such affiliate is associated with the applicant or any person required to be disclosed under subparagraph (A) or (B) of this paragraph;
- **(D)** the proposed location and capacity of the deepwater port, including all components thereof:
- **(E)** the type and design of all components of the deepwater port and any storage facilities associated with the deepwater port;
- **(F)** with respect to construction in phases, a detailed description of each phase, including anticipated dates of completion for each of the specific components thereof;
- **(G)** the location and capacity of existing and proposed storage facilities and pipelines which will store or transport oil transported through the deepwater port, to the extent known by the applicant or any person required to be disclosed pursuant to subparagraphs (A), (B), or (C) of this paragraph:
- **(H)** with respect to any existing and proposed refineries which will receive oil transported through the deepwater port, the location and capacity of each such refinery and the anticipated volume of such oil to be refined by each such refinery, to the extent known by the applicant or any person required to be disclosed pursuant to subparagraphs (A), (B), or (C) of this paragraph;
- (I) the financial and technical capabilities of the applicant to construct or operate the deepwater port;
- (J) other qualifications of the applicant to hold a license under this chapter;
- (K) a description of procedures to be used in constructing, operating, and maintaining the deepwater port, including systems of oil spill prevention, containment, and cleanup; and
- **(L)** such other information as may be required by the Secretary to determine the environmental impact of the proposed deepwater port. Have these been met?

# P075-4 P075-4

During the review of the Cabrillo Port license application, the Coast Guard and MARAD determined that the Applicant provided sufficient information regarding identifying preliminary costs for decommissioning and removal of the deepwater port. In the event that Cabrillo Port is licensed and in accordance with 148.105(g)(iii) of the Coast Guard Deepwater Port Regulations, MARAD will require a bond, guarantee, or other financial instrument to cover the complete cost of decommissioning. Additionally, other provisions within the Deepwater Port Act and the implementing regulations provide that any MARAD license that may be issued will have specific conditions that require the licensee to comply with all applicable Federal and State laws, which would include any provisions of Outer Continental Shelf Lands Act (OCSLA) that may apply.

The projected FSRU in-service life is a maximum of 40 years. Environmental conditions and specific impacts 40 years from now are not reasonably foreseeable. As noted in Section 2.8, supplemental NEPA/CEQA documentation, which would take into consideration the environmental conditions at the time, would be required prior to the decommissioning of the FSRU. Also as noted in Section 2.8, as part of the license approval, the DWPA requires each applicant to furnish a bond or demonstrate other proof that if the project is abandoned then sufficient monies would be available for either completion or demolition of the project.

#### TITLE 33 > CHAPTER 29 > § 1502

### § 1502. Definitions

- (1) "adjacent coastal State" means any coastal State which
- **(A)** would be directly connected by pipeline to a deepwater port, as proposed in an application;
- **(B)** would be located within 15 miles of any such proposed deepwater port.

### **Environmental Justice:**

Why are they running two(2) undersea pipelines 22+ miles back to Oxnard where most of the people are people of color and working poor rather than running them to the nearest shore line? Seven miles of pipeline would be saved if they went straight as the crow flies thought Thousand Oaks and Camarillo to center point road, instead of Oxnard, they are more affluent and fewer people of color.

With the destruction the Oxnard Plains Agriculture Business.

Where are the Millions of Cubic Yards of soil that is displaced by this 36" pipeline going to be spread?

How is this going to effect the environment with the DDT and other contaminates mixed in it? The pipeline will be near homes, a few affluent and a disproportionately number of low income homes. If there is a disaster and all get out safely, you know who will have the lest problem recuperating.

### **4.4 AESTHETICS**

Pacific Coast Highway, State Highway (1), is a scenic Highway along the Beautiful Coast of California, these Industrial Giants will destroy our serene view.

The onshore metering station will be an intrusion at Ormond Beach.

# 4.2.3 Independent Risk Assessment and Sandia National Laboratories Review

The LNG industry has been operating for 40 years. In those 40 years, fewer than 20 marine accidents involving LNG have occurred worldwide, none of which resulted in a significant release of LNG

### BHP can not take credit for this, because have not LNG record.

The 2006 IRA (Appendix C1 of this document) incorporates Sandia's recommendations, and the conclusions and recommendations of the 2006 IRA are the result of collaboration and concurrence between Sandia and the IRA authors. The public safety analysis of the FSRU in Section 4.2 is based on the 2006 IRA and on the Sandia guidance.

The IRA evaluated the potential consequences of an accident and fire based on the total volume of LNG that would be stored on the FSRU or in an LNG carrier while berthed at the FSRU during unloading.

The evaluation is flawed because, in real life there many variables.

When there is a breech, there be LNG released also other toxicants such as the insulation around the tanks that holds the LNG, also the odorant that is put into the gas before being sent ashore.

The wind velocity, temperature and directions may be different at various altitudes from the sea surface up to the jet stream.

### P075-5

The USCG, MARAD, and the CLSC received an application for a deepwater port off the shore of Ventura County. The USCG and MARAD are therefore required under NEPA to evaluate this alternative as the Applicant's preferred alternative. The agencies have evaluated this alternative in comparison with the other reasonable alternatives in compliance with NEPA and the CEQA.

The EIS/EIR initially evaluated 18 locations for the FSRU as potential locations for the deepwater port. It built on previous California Coastal Commission studies that evaluated nearly 100 locations. Section 3.3.7 contains information on other locations that were considered.

Sections 4.19.1 and 4.19.4 contain information on potential Project impacts on minority and low-income communities and mitigation measures to address such impacts.

P075-6

P075-5

Section 4.5.4 addresses agricultural impacts. Section 2.7 and HAZ-2 in Section 4.12.4 address onshore pipeline construction, the potential release of contaminants, and measures to follow if hazardous soil is encountered during trench construction. Section 4.2 addresses public safety impacts.

P075-6

While the FSRU would likely be visible from portions of SR 1 (also known as the Pacific Coast Highway), the distances from any given point along SR 1 to the FSRU are greater than the view simulated in Figure 4.4-13, so the apparent size of the FSRU would be smaller and less discernible than presented in this simulation. As stated in Impact AES-4 in Section 4.4.4, "Because the view is intermittent, the FSRU is very remote, and it would be similar in appearance to vessels that commonly transit the Project area, this impact would be adverse but less than significant, and no mitigation measures are required."

The proposed metering station would be built on the grounds of Reliant Energy's Ormond Beach Generating Station, behind screened fences with minimal new lighting added. The view of the facility would not be substantially altered from its current appearance.

P075-8

P075-7

As discussed in Section 4.2.7.4, the chronological summary of major LNG carrier accidents included in Appendix C3 of this document identifies only five accidents since 1944 that occurred when LNG ships were at sea. None of these accidents resulted in

P075-9



injuries, fatalities, or a release of LNG, and only one was the result of a collision with another vessel. In 2002, the LNG ship Norman Lady collided with a U.S. Navy submarine, the U.S.S. Oklahoma City, east of the Strait of Gibraltar. The collision occurred after the LNG cargo had been unloaded, and although dents and cracking in the hull were reported, no damage was sustained by the empty Moss-type spherical storage tanks. According to the U.S. Department of Energy, over the life of the industry, eight marine incidents worldwide have resulted in spillage of LNG, with some hulls damaged due to cold fracture, but no cargo fires have occurred. Seven incidents not involving spillage were recorded, two from groundings, but with no significant cargo loss; that is, repairs were quickly made and leaks were avoided. There have been no LNG shipboard fatalities.

All LNG carriers are subject to two levels of oversight, international and domestic. They are inspected and certificated by both a designated classification society (e.g., ABS, Lloyds or DNV) on behalf of the flag state that will attest to compliance with applicable IMO standards for carriage of LNG. When a foreign flag LNG carrier enters U.S. waters, the USCG thoroughly examines the vessel for compliance with applicable U.S. regulations and to ensure compliance with vessel operating procedures. Any cited discrepancies must be corrected prior to returning to the U.S. and if serious enough to threaten the safety of personnel or the environment, deficiencies must be corrected prior to commencement of operations or departure from U.S. waters. Each LNG carrier must be inspected

Impact PS-2 in Section 4.2.7.6 contains information on a potential release of LNG due to a high-energy marine collision or intentional attack. Section 4.2.7.6 and the Independent Risk Assessment (Appendix C1) contain information on public safety impacts from various incidents at the FSRU. The analysis indicates that the maximum impact distance of an accident would involve a vapor cloud dispersion extending 6.3 nautical miles (7.3 miles) from the FSRU. The FSRU would be located approximately 12.01 nautical miles (13.83 miles) offshore; therefore, consequences of an accident involving LNG transport by carrier and storage on the FSRU would extend no closer than 5.7 nautical miles (6.5 miles) from the shoreline. Figure ES-1 depicts the consequence distances surrounding the FSRU location for worst credible events.

Impact MT-4 contains information on FSRU or LNG Carrier Accident Impact on Marine Traffic; mitigation measure AM PS-2a, AM MT-3a, AM MT-3b, AM MT-3c, and AM PS-3b are measures the Applicant has incorporated into the proposed Project. MM



MT-3f. is a mitigation measure that has been proposed to address this potential impact.

Section 4.3.4 discusses impacts associated with the increased vessel traffic due to the proposed Project (see Impact MT-2). The Independent Risk Assessment (IRA) in Appendix C1 contains an independent evaluation of potential collisions of vessels with the FSRU. The collision analysis conducted for the IRA included those ships capable of damaging the FSRU (see Appendix F of Appendix C1).

As stated in Section 4.2.3, "[t]he LNG carriers would use routes that are farther from shore than the FSRU and therefore farther away than the FSRU from most recreational boating and fishing areas and the vessel traffic lanes." As such, LNG carriers would not present risks or hazards to the general onshore public while in transit to the FSRU.

### P075-8

Mitigation Measure PS-1e in Section 4.2.7.6 contains information on the flammability of the insulation in the FSRU hull. In addition, the marine safety and security requirements cited in Appendix C3, under the topic of secondary containment and thermal management, identify International Gas Carrier (IGC) Code requirements that concern insulation.

The combustion of the odorant, if released, would be hazardous but temporary. Impact AIR-3 in Section 4.6.4 contains information on this topic.

### P075-9

Section 4.1.8.5 contains information on existing wind conditions at the offshore Project site. Figure 2.1-2 depicts the maximum area from the FSRU in any direction that could be affected in the event of an accident; impacts would not reach the shoreline. Section 2.3.5.3 of the Independent Risk Assessment (see Appendix C1) contains information on the environmental, meteorological and ocean conditions that were considered in the modeling of LNG spills and dispersion.

Therefore the cloud is not as predictable as implied in these studies.

There needs to be a real life test with all of the LNG in a full tanker.

We test bombs that take lives, why not do these test to save lives and see the results.

2006/P075

P075-10

P075-10

To date, there has never been a large spill of LNG to water. Conducting a large LNG spill to validate the models would result in adverse environmental consequences. However, models are commonly validated using experimental data. Section 2.3.4.2 of Appendix C1 contains information on tests executed by the U.S. Department of Energy and the calibration/verification of the Fire Dynamics Simulator model used in the Independent Risk Assessment. Appendix C1 provides additional information on this topic and Appendix C2, prepared by the U.S. Department of Energy's Sandia National Laboratories, contains information on the review and assessment of the models used.

William L. Terry 250 E. Pleasant Valley Rd. #47 Oxnard, Ca. 93033 805-488-0422

Dwight E. Sanders California State Lands Commission 100 Howe Avenue, Suite 100-South Sacramento, CA 95825

State Clearinghouse number: 2004021107 USCG/MARAD

Docket number USCG-2004-16877.

### MAJOR CHANGES TO THE PROJECT

New Offshore Pipeline Route. The route of the offshore pipelines has been revised, following geotechnical analyses, to reduce the potential for turbidity flows to affect the pipelines.

#### Comment:

Do not address earthquakes, under sea land slides or tsunamis in the Santa Barbara Channel.

Pipeline Installation at Shore Crossing. The Applicant would use horizontal directional boring (HDB) instead of horizontal directional drilling (HDD) to install the Project pipelines beneath the shore. HDB uses a semi-closed loop system in which excess mud and cuttings are pumped back to the drill rig; lower pressures are used, and the possibility of drilling fluid release is minimized or eliminated. Vessels used during HDB operations would be anchored. Cofferdams would not be used.

### Comment:

This do not eliminate the problem at Ormond Beach only increases it, which is in the process of being restored from industrial damage.

This is The City of Oxnard's Jewel.

New Onshore Pipeline Route Segment Near Center Road Station, Ventura County.

### Comment:

No new route for the low income and people of color's housing.

Gas Odorant Injection. To assist in leak detection by smell, the Applicant would inject an odorant into the natural gas stream at the FSRU. Southern California Gas Company (SoCalGas) would operate a backup odorant injection system onshore.

#### Comment:

P090-1

Section 4.11 contains information on potential seismic and geologic hazards and mitigation measures to address impacts. Impacts GEO-3 and GEO-4 contain information on potential impacts and mitigation related to earthquakes and related hazards. Appendices J1 through J4 contain additional evaluations of seismic hazards. Section 4.11.1.8 and Impact GEO-6 in Section 4.11.4 contain information on potential impacts from tsunamis and mitigation measures to address impacts.

Section 4.11.1.5 and Impact GEO-5 in Section 4.11.4 contain information on the potential for damage to pipelines and other facilities and mitigation measures to address potential impacts that could occur due to mass movement of soil that is of a transitory and sporadic nature. As stated, "[m]ass movement includes landslides, liquefaction, subsidence, sand migration, and turbidity currents. The ground shaking from an earthquake could cause loose sediments found on slopes to move." The proposed offshore route avoids active offshore canyons, reducing but not eliminating the potential for slides and turbidity currents. The Applicant has incorporated AM GEO-5a (see Section 4.11.4) into the proposed Project, and MM GEO-3c in Section 4.11.4 would require the Applicant to complete final site-specific geotechnical and seismic hazard studies to address this potential impact.

P090-2

P090-1

P090-2

HDB would be used for the shore crossing at Ormond Beach instead of HDD. As discussed in Section 2.3.2, "HDB technology would be employed to place the pipelines at least 50 feet (15.2 m.) below the surface of the beach and the adjacent sea level except at both ends where the pipelines slope up to meet the entry and exit points."

Sections 2.3.2 and 2.6.1 discuss the installation of the pipeline at the shore crossing using HDB. Appendix D1 contains the Drilling Fluid Release Monitoring Plan For HDB. Impact BioMar-2 in Section 4.7.4, Impact TerrBio-5 in Section 4.8.4, Impacts NOI-4 and NOI-5 in Section 4.14.4, and Impact WAT-3 in Section 4.18.4 discuss the potential impacts and mitigation measures for HDB.

Sections 4.8.1 and 4.13.1 discuss the potential impacts of the Project on the Ormond Beach Wetland Restoration Project.

P090-4

P090-3

P090-3

Section 4.19 contains information on low-income and people of color's housing.



# P090-4

The main odorant station is located on the FSRU with a smaller backup odorant facility onshore. Sections 2.4.1.3, 4.2.7, 4.7.4, 4.12, 4.18.4, 6.2.2, and 6.2.3 contain information on this topic.

Onshore should be restricted to only emergency, also odorant storage at a minimum.

Alternatives. The lead agencies have expanded information regarding the dual mooring alternative to the FSRU technology (such as that used by Excelerate Energy).

Comment:

Is the same technology used on the oil rig Typhoon that was set afloat.

Pipeline Safety. SoCalGas would install additional mainline valves equipped with either remote valve controls or automatic line break controls in the Center Road Pipeline, which would limit the area affected by a potential pipeline accident.

### Comment:

A disturbing (%) percentage of valves failed in the Northridge Earthquake. Terrorists: how will this be prevented, WASHINGTON - In January 1982, President Reagan approved a CIA plan to sabotage the economy of the Soviet Union through covert transfers of technology that contained hidden malfunctions, including software that later triggered a huge explosion in a Siberian natural-gas pipeline, according to a new memoir by a Reagan White House official, this did happened.

### PUBLIC INVOLVEMENT

I applaud the effort made to reach out to the community, the Spanish Speaking was provided with a translator once inside the hearing.

I am not aware if others had the same experience that I observed at the tables where people were to sign in. Four Spanish speaking People were at the table were only given registration cards and not speaker cards; I greeted them and got each of them a speaker card.

They were there about 7:30 or 8:00 PM, as you should know a large numbers of our community work until sundown in the fields and sundown is late this time of year.

Mitigation measures to minimize significant adverse impacts.

Significant adverse impacts should be eliminated not just minimized.

### PROJECT ALTERNATIVES

PROJECT ALTERNATIVES were not extensively explored Conservation, Solar, Wind and Geothermal just to name a few.

P090-4 Continued

P090-4 Continued

P090-5

P090-5

The Typhoon Platform, a tension leg production platform in the Gulf of Mexico jointly owned by Chevron and BHPB, was severed from its mooring and severely damaged during Hurricane Rita. The Typhoon Platform was designed for a different purpose using different design criteria.

2006/P090

P090-6

The Cabrillo Port must be designed in accordance with applicable standards, and the USCG has final approval. Section 2.1 contains information on design criteria and specifications, final design requirements, and regulations governing the construction of the FSRU. Section 4.2.4 contains information on Federal and State agency jurisdiction and cooperation. The Deepwater Port Act specifies performance levels that all deepwater ports must meet; Section 4.2.7.3 contains information on design and safety standards for the deepwater port. Section 4.2.8.2 contains information on pipeline safety and inspections. If the FSRU were to become unmoored, the patrolling tugboats could be used to hold it in place. Section 4.3.1.4 addresses this topic.

The regulation implementing the Deepwater Port Act (33 CFR 149.625 [a]) states, "Each component, except for those specifically addressed elsewhere in this subpart (for example, single point moorings, hoses, and aids to navigation buoys), must be designed to withstand at least the combined wind, wave, and current forces of the most severe storm that can be expected to occur at the deepwater port in any 100-year period." By definition, a 100-year wave event is expected to occur once every 100 years on average over the course of many hundreds of years. The EIS/EIR's analyses have been developed with consideration of these factors and regulations.

P090-6

The proposed pipelines within Oxnard city limits would meet standards that are more stringent than those of existing pipelines because they would meet the minimum design criteria for a USDOT Class 3 location. Also, MM PS-4c includes the installation of additional mainline valves equipped with either remote valve controls or automatic line break controls. SoCalGas operates high-pressure natural gas pipelines throughout Southern California.

P090-7

Reducing the mainline valve spacing (MM PS-4c in Section 4.2.8.4) and requiring the Applicant to adhere to additional seismic design guidelines (MM GEO-3d in Section 4.11.4) would further reduce



impacts in case of a pipeline rupture caused by an earthquake.

# P090-7

Sections 1.2.2, 1.2.3, 1.2.4, 3.3.1, 3.3.2, and 4.10.1.3 contain information on the need for natural gas, the role and status of energy conservation and renewable energy sources, and the California Energy Action Plan.

Sections 3.3.1 and 3.3.2 address conservation and renewable energy sources, within the context of the California Energy Commission's 2005 Integrated Energy Report and other State and Federal energy reports, as alternatives to replace additional supplies of natural gas.

### 4.2 PUBLIC SAFETY

Public safety issues associated with the transport of LNG in carriers, storage and offshore handling of LNG at the FSRU, and offshore and onshore pipeline transport of odorized natural gas after it has been regasified aboard the FSRU were evaluated. The effects analyzed include serious injury or fatality, and long-term damage to the environment.

Science has changed between now and the 1970s, this is many people at risk.

Will the other gases and toxins that will be released when the LNG is released respond the same as the methane?

If not, how will they?

### 4.9 CULTURAL RESOURCES

The Applicant would conduct a more focused marine archaeological survey before pipeline installation begins to confirm location of these objects and would use navigational tools to avoid the location of all significant marine archeological resources.

Shouldn't be done before approve this?

This Cabrillo Port Liquefied Natural Gas Deepwater Port Revised Draft EIR fail to adequately address issues in the first Cabrillo Port Liquefied Natural Gas Deepwater Port Draft EIR.

Thank You.

P090-8

P090-8

P090-9

Impact AIR-3 in Section 4.6.4 contains information on this topic.

P090-9

As discussed in Section 4.9.1.3 and under Impact CULT-1 in Section 4.9.3, potential cultural resources were identified through a records search and interpretation of a geophysical survey by a qualified marine archaeologist.

Mitigation Measure AM CULT-1a requires that a subsequent verification archaeological survey be conducted prior to construction to determine whether 26 of the total 46 targets identified could be of human origin. If the results of this subsequent survey show the presence of significant cultural resources, this mitigation measure requires that those marine resources be avoided. Implementation of Mitigation Measure AM CULT-1a would ensure that avoidance measures would be incorporated into the project design prior to constructionand that the Project would not result in a significant impact to marine cultural resources.

P090-10 P090-10

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

From: Investor Relations [investorrelations@vinobleinc.com]

**Sent:** Friday, April 28, 2006 7:37 PM **To:** bhpreviseddeir@slc.ca.gov

Subject: Mlibu LNG protest

Importance: High

Dwight,

I assure you there can be no good that will come of a foreign company setting up a sure to be environmental disaster of the California coastline. And only god knows if there may be a life threatening potential disaster. I would rather continue to pay higher gas and energy prices than to live in the sewer these people propose that we live in.

I say no to the project and object very strongly.

John Thompson

23852 Pacific Coast Highway Malibu, CA 90265

# 2006/V036

### V036-1

The DWPA and implementing regulations have strict requirements regarding the ownership of these federally licensed ports. The DWPA and the regulations also control the transfer of any license to insure that U.S. ownership of these facilities is maintained and monitored. Sections 4.6.4 and 4.18.4 discuss the Project's potential impacts on air and water quality. Sections 4.7.4 and 4.8.4 discuss the Project's potential effects on the marine and terrestrial environments of the California coastline.

V036-1 V036-2

V036-3

Section 4.2 and Appendix C contain information on public safety.

### V036-3

V036-2

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

April 19, 2006

**Dwight Sanders** State lands commission, 100 Howe Avenue Suite 100 South Sacramento California 95825-8202

Re: Stop Cabrillo Port LNG

Dear Mr. Sanders,

Please stop Cabrillo port LNG industrial plant from progressing any further in the permit process. California law prohibits industrial intrusion on highly scenic areas. The last remaining wild areas on the Southern California Coast will be permanently despoiled if this industrial plant is installed. In fact over 10 national parks, national recreation areas, state, city and county parks will be despoiled. This would forever impact the quality of life of the areas residents and negatively impact the millions of vistors who come to hike and enjoy the seashore. In addition, federal and state governments own studies show that this project would:

- result in both short term and long term adverse impacts to the coast and it's residents
- Increase smog levels (tons of pollutants spewing directly upwind from our houses, beaches and hiking trails.
- contain 14 story high pollution spewing industrial towers with lines of support ships which forever will be our new horizon. This towers will be brightly lit at night being a 24 hour eye sore.
- harbor the possibility of a 14 mile wide explosive flash fire due to an accident of terrorist attack.
- be visible from all elevations in malibu from downtown Malibu all the way to Port Hueneme.
- require a "security zone" of 2.3 miles around it. (to protect from terrorism, accidents etc) which is in the same shipping channel where 10,000, container ships and oil tankers use annually.

There are many more negative impacts than the above "official" ones disclosed by the federal and state study.

PLEASE do not allow this to go forward. We, the citizens of Southern California will fight this project until it is derailed. Our money and time can be spent on projects that truly will improve the quality of life in Southern California rather than just provide an opportunity for foreign Companies

Sincerely, Bam MAN BARRY TIKGTIN 22668 FLAMING ST, WOODLAND WILLS, CA 91364

To view the responses to this letter, go to "Index--Read this First" and select "2006 Letters--Form Letter."

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There are many more negative impacts than the above "official" ones disclosed by the federal and state study.

PLEASE do not allow this to go forward. We, the citizens of Southern California will fight this project until it is derailed. Our money and time can be spent on projects that truly will improve the quality of life in Southern California rather than just provide an opportunity for foreign Companies to sell us gas that they and we do not need.

27918 DeVille UY Malibu Ca 90265 Jacqueline G. Tonlinson From: Averi Torres [averi@averi.com] Sent: Monday, May 08, 2006 1:16 PM To: BHPRevisedDEIR@slc.ca.gov

Subject: Opposed to the LNG facility proposal

I am opposed to the LNG facility proposal off the shore of Ventura/Malibu and know this is a disaster in the making. Please vote against it.

Thank you.

AVERI TORRES Malibu's Resident Psychic® 6779 Las Olas Way, Malibu, Ca 90265

Tel: 310/ 457-4406 Fax: 310/ 457-0993 E-mail: averi@averi.com Website: http://www.averi.com

## 2006/P048

P048-1

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

P048-2

P048-1

P048-2

Section 4.2 and Appendix C contain information on public safety.



April 25, 2006

Mark A. Prescott Chief, Deepwater Ports Standards Division United States Coast Guard Commandant (G-PSO-5) U.S. Coast Guard Headquarters 2100 Second Street, SW Washington, D.C. 20593

RE: Comments on Revised Draft Environmental Impact Report for the Cabrillo Port Liquefied Natural Gas Deepwater Port – March 2006

Dear Mr. Prescott:

Excelerate Energy, L.L.C. ("Excelerate") has been monitoring the proceedings surrounding the Cabrillo Port Deepwater LNG terminal ("Cabrillo") proposed by BHP Billiton to be located offshore California. The California State Lands Commission ("CSLC") recently released the Draft Environmental Impact Report ("DEIR") for the Cabrillo Project, and upon further review Excelerate has identified a significant number of factual inaccuracies in the document. While each project being reviewed by the CLSC and the U.S. Coast Guard ("USCG") should be reviewed on its own merits, the DEIR directly references Excelerate's technology as a project alternative on the basis of factual misstatements about several aspects of the technology and its current application. Consequently, if Excelerate's Energy Bridge<sup>TM</sup> technology is to be a part of the alternatives analysis set forth in the DEIR, it is important to regulators, the public, and ourselves as a company that the DEIR be based on correct information. Otherwise, the alternatives analysis and, indeed, the DEIR will be flawed. Furthermore, while Excelerate has endeavored to avoid using this or any other public proceeding as a forum for comparing any projects under development by Excelerate with projects proposed by others, we feel that it is important to correct the record in this proceeding regarding factual inaccuracies presented in the DEIR.

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G007-1

Thank you for the information.

Should you have any questions regarding this submission, please do not hesitate to contact me at your discretion.

Sincerely,

Mike Trammel

Director-Environmental

mike Irannel

# 1. Increased Air Emissions Utilizing Closed-Loop Regasification Mode

In Section 3.3.8.3, page 3-28, line 12, the DEIR states that while operating in the closed-loop mode, "air emissions for the closed loop system are significantly higher than the open loop system. With respect to potential adverse impact to water and air quality associated with regasification, this technology increases, not avoids, potential environmental impacts." Table 3.3-2 in the section provides a comparison of air emissions between Excelerate's Gulf Gateway Deepwater Port ("Gulf Gateway") facility and the Cabrillo Floating Storage Regasification Unit ("FSRU"). As discussed herein, Excelerate's Energy Bridge™ technology is constantly evolving and improving. While the comparison's made by the DEIS between Gulf Gateway and the proposed FSRU is a valid comparison historically, it does not reflect the current state of Excelerate's technology.

By way of background, the Gulf Gateway facility, located approximately 116 miles offshore of Louisiana, consists of a submerged turret loading ("STL<sup>TM</sup>") buoy, flexible riser, pipeline end manifold ("PLEM"), and associated anchoring system. The Deepwater Port Act excludes the liquefied natural gas ("LNG") delivery vessel as part of the deepwater facility; however, for the Gulf Gateway facility, the Environmental Protection Agency ("EPA") Region 6 required Excelerate to apply for a Point Source Discharge ("PSD") air permit for the emissions associated with the LNG vessel while it is engaged in regasification of the LNG. EPA, however, did not require Excelerate's vessels to install emissions control technology and, instead, determined the Best Available Technology Control ("BACT") for emissions reductions would be achieved by requiring the vessels to use natural gas as boiler fuel while in the regasification

2006/G007

G007-2

G007-2

Thank you for the information. Section 3.3.8.3 was revised to clarify these issues.

Excelerate Energy L.L.C. 1330 Lake Robbins Drive Suite 270The Woodlands, Texas 77380 TEL 832.813.7100FAX 832.813.7100

mode. Cabrillo, in Table 3.3-2 compares its facility with air emission control technology G007-3 installed, with Excelerate's first generation vessels that were, with the assent of EPA, designed without the same control technology. That comparison, however, does not reflect the most current Excelerate technology.

Through its proposed Northeast Gateway Deepwater Port Project ("Northeast Port"), to 1 G007-4 be located approximately 13 miles offshore of Massachusetts, Excelerate, in response to government and public input regarding location specific emissions, and in cooperation with various air emission control vendors and the ship builder, Daewoo Shipbuilding and Marine Engineering Co. ("DMSE"), will be able to achieve a nearly 90% reduction in its NOx emission rates utilizing current state-of-the-art air emissions control technology on its second generation Energy Bridge<sup>TM</sup> Regasification Vessels ("EBRVs") proposed for use at that facility. Excelerate will also retrofit existing vessels within its fleet that deliver LNG to the Northeast Port with this control technology. Installation of Selected Catalytic Reduction ("SCR") technology for all vessels delivering to the Northeast Port, combined with operations improvements, will reduce the air emissions to below Federal Major Source levels, with NOx emissions at approximately 49 tons per year ("tpy") and CO below 100 tpy. This information was submitted to EPA Region 1 as well as the Coast Guard and is part of the record for Northeast Port. With these improvements, Excelerate's EBRVs will have lower emissions than Cabrillo. The information used in Table 3.3-2 is outdated and should be corrected with information from the following table.

G007-3

Table 3.3-2 has been revised, and Section 3.3.8.3 contains updated information on Excelerate's Gulf Gateway and Northeast Gateway Projects.

### G007-4

"Multiple-Point Mooring Direct Gasification" in Section 3.3.8.3 has been revised to include a discussion of the Northeast Port Project.

G007-4 Continued

Annual Emissions from Second Generation EBRVs with SCR installed and operating at Maximum Load.

(all values expressed in tons/year)

	Emissions from Auxiliary Generator - 370 hrs/yr @ 3650 kW	Emissions from Boilers - 7664 hr/yr	Total Emissions
NO <sub>x</sub> (as NO <sub>2</sub> )	18.0	31.0	49.0
СО	5.0	75.4	80.4
VOC	1.9	9.2	11.1
PM	0.6	12.8	13.4
SO <sub>2</sub>	3.7	1.0	4.7
Total HAP	0.02	3.2	3.2

## 2. Single-Point Mooring Technology Designed Only for Intermittent Market Demand.

On Page 3-28, line 16, the DEIR states that objective of the Cabrillo project is to develop a deepwater port that would deliver a continuous supply of natural gas to the local energy markets, and that the single-point mooring concept is designed only to meet incremental market demand, which is incorrect. The DEIR again uses information regarding the Gulf Gateway facility, which was neither designed nor intended, as a base load delivery facility. Excelerate has been clear that the Gulf Gateway project was specifically designed for intermittent service and short term deliveries of LNG. Given the depth and breadth of the Gulf of Mexico market and the ability of that port to deliver directly into Henry Hub, the pre-eminent gas trading center in the United States, and other highly liquid markets, this location is ideally suited for these types of

G007-5

G007-5

Section 3.3.8.3 has been revised to state that the Gulf Gateway Project was specifically designed for intermittent service.

transactions.

G007-6

G007-7

In contrast, Excelerate's Northeast Port will provide a continuous, base load delivery of natural gas, with a peak delivery volume up to 800 million cubic feet per day ("MMcfd"), utilizing a dual buoy system. Thus, the Excelerate system can be designed to accommodate either intermittent delivery, as is the case with the Gulf Gateway facility, or it can provide base load service, as is the case with the Northeast Port. Accordingly, it is incorrect to state that Excelerate's system is capable of providing only intermittent service.

### 3. Inclement Weather will Prevent Deliveries with the Single-Point Mooring Technology

On page 3-28, line 21, the DEIR states that if weather prevents the EBRV from berthing, then no natural gas could be supplied. Excelerate's Energy Bridge ™ system design is based on technology tested and proven in the harshest of conditions found in the North Sea. Designed to discharge its cargo in extreme sea states and based on available historic weather data for the area proposed, the EBRVs would have the capability to stay on station and continue delivery of natural gas virtually uninterrupted regardless of weather conditions. If the degree of severe inclement weather were to escalate to a level that would require the EBRV to discontinue regasification operations and leave the area, these same conditions would likely prompt an evacuation of the Cabrillo personnel, and thus halt delivery of natural gas as well. Indeed, during Hurricane Katrina, when every oil and gas producing platform within the vicinity of that storm evacuated all of their personnel and ceased operations, Excelerate's EBRV, also in the proximity of the storm, was able to continue discharging its regasified LNG at the Gulf Gateway facilities. Moreover, under the most severe weather conditions, the EBRV has the ability to discontinue deliveries and move away from the weather, returning in a relatively short period of time to resume regasification activities. In contrast, a fixed facility, such as the Cabrillo facility, equipped with no propulsion capabilities, would have to power down its operations and remain G007-6

Section 3.3.8.3 has been revised to clarify that a single-point mooring system cannot provide continual service, but a dual-point mooring system is able to provide continuous service.

G007-7

Section 3.3.8.3 has been revised to explain that the Excelerate system is designed and tested to withstand weather events in the North Sea; however, its operations are governed by a USCG approved operations manual.

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fixed in its position to hopefully "ride out" the storm like the oil and gas production platforms in G007-7 Continu the Gulf of Mexico had to during Hurricanes Katrina and Rita in August and September 2005, respectively, hopefully with better results than some. Excelerate's ability to continue discharging regasified LNG into the downstream market while moored to its Gulf Gateway facility at the height of Hurricane Katrina demonstrates the robustness of the design of Gulf Gateway and the ability for the EBRVs to continue operations during inclement weather.

# 4. Limited Number of Operating Vessels with On-Board Regasification Technology

On page 3-30, line 3 of the DEIR, the statement that only one LNG carrier with on-board regasification capabilities is currently in operation is incorrect. Excelerate currently operates two regasification vessels, the *Excelsior* and the *Excellence*, with the delivery of a third vessel, the *Explorer*, scheduled to begin operating during the fourth quarter of 2006. In addition, Excelerate has ordered two additional vessels, the *Excelerate* and the *Express*, to be delivered in 2008 and 2009 respectively. All five vessels will be capable of onboard regasification, as well as delivering LNG, either in gaseous or liquefied form, to fixed LNG terminals, either onshore or offshore. In contrasts, it should be noted that there are no operating LNG FSRU facilities as proposed by Cabrillo in service at any location in the world, nor have any been constructed.

### 5. Single-Point Mooring Concept does not meet the Project Objectives

On page 3-30, line 4, the DEIR analysis concludes that use of a single-point mooring system DWP concept cannot meet the project objective of a continuous supply of natural gas nor result in less environmental impacts. Excelerate's comments herein address both of these concerns, and demonstrate clearly that its Energy Bridge TM technology: (i) can provide a continuous supply of natural gas to the market, (ii) has the flexibility to respond to market

G007-7 Continued
G007-7
Continued

G007-8

### G007-8

Section 3.3.8.3 has been revised with the information concerning the nature and extent of regasification vessels.

### G007-9

Thank you for the information that represents Energy Bridge technology's capabilities. It is clear that the dual-point mooring system can provide a continuous supply of natural gas; however, it is also clear that a single-point mooring system cannot do the same. Section 3.3.8.3 has been revised with additional information on the Northeast Gateway Project from its Final EIS describing its capabilities and environmental impacts.

See response to Comment G007-6.

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demands more effectively and efficiently, and (iii) has air emissions and water usage volumes G007-9 Continued that are lower than the Cabrillo facility.

# 6. Multiple-Point Mooring Concept

On page 3-30, line 12, the DEIR states that in order to have the same storage capacity as the Cabrillo FSRU, a minimum of three single-point mooring systems would be required. That is an incorrect statement. Excelerate's Northeast Port is designed to provide base load delivery of natural gas and will meet that delivery rate utilizing only two single-point mooring systems. To achieve the base load delivery utilizing the two buoy system, Excelerate's fleet of EBRVs would schedule their arrival and departure times to allow for a degree of overlap when two vessels will be moored to the port. Excelerate's next generation vessels (noted as the fourth and fifth vessels above) will have a loaded capacity of approximately 151,000 m³ of LNG and the individual vessel will have the capability of a discharging natural gas at a rate of approximately 600 MMcfd in the closed-loop mode. Moreover, Excelerate's Energy Bridge TM system used at both the Gulf Gateway and Northeast Port deepwater ports are designed to accommodate vessels with an LNG capacity of up to 250,000 m³.

# 7. Regasification Vessels Always Present at the Port

On page 3-30, line 26, the DEIR states: "For Cabrillo Port, LNG carriers would dock and unload LNG for 16 to 22 hours and then leave. Two to three LNG carriers would dock and unload at Cabrillo Port weekly. In contrast, since the LNG carriers for the mooring buoy system must regasify the LNG, a carrier would remain docked for six to seven days to discharge its cargo and one would always be operating at two of three buoys." Excelerate notes that even when vessels are not docked at the Cabrillo Port, the FSRU is permanently moored at the

G007-9 Continued

### G007-10

"Multiple-Point Mooring Direct Regasification" in Section 3.3.8.3 has been revised to explain that a dual-buoy mooring system can meet the need for continuous natural gas supply. Discussion of a triple-point mooring system has been removed.

### G007-11

G007-10

G007-11

Section 3.3.8.3 has been revised. The Applicant also has decreased the number of LNG carriers that would dock to one to two weekly. The revised discussion clarifies that the FSRU would be permanently moored and would require service vessels, and that an LNG regasification carrier would leave after unloading its LNG cargo.

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location in continuous operation as well. Additionally, the FSRU will require frequent service and assist vessels when the LNG carriers do come to the facility, increasing vessel traffic in the vicinity of their facility. Thus this point is incorrect or at best misleading.

# 8. Safety Zones Surround Multiple-Point Mooring Systems Present Great Impacts

On page 3-30, line 26, the DEIR states: "Cabrillo Port would have only one safety zone/ATBA; the entire area surrounding Cabrillo Port that would have safety restrictions would likely be one-third of the size of the area for a triple-point mooring system." The DEIR references the safety zone, no anchoring zone, and Area-To-Be-Avoided ("ATBA") designated at the Gulf Gateway facility. Only the 500-meter radius Safety Zone is required and enforced by the U.S. Coast Guard for the safety of the facility. Each of the other exclusion zones proposed by the facility are requested both as a safety factor for the facility but also for the public use of the surrounding marine resources. Development of these exclusion areas was carefully done through discussions with the U.S. Coast Guard, the International Maritime Organization, and agencies responsible for managing the marine resources, as well as fishermen and other public users of the resources.

# 9. Multiple-Point Mooring System Impacts to Marine Life Greater

On page 3-31, beginning on line 3, the DEIR states that the impacts to marine species using the multiple-point mooring system would be the same as the single-point mooring system with regard to the use of the open-loop regasification mode, citing impacts to fish eggs, larvae and other marine biota. The comparison is misleading as Cabrillo continues to compare its operations and impacts to the Gulf Gateway facility that is authorized to operate in the open-loop mode. Comparing Cabrillo to Excelerate's Northeast Port with regard to impacts to marine biota is more appropriate for this discussion. Cabrillo has indicated they will utilize submerged

G007-11 Continued

### G007-12

G007-13

Section 3.3.8.3 has been revised to discuss the distinction between safety zones and Areas to be Avoided.

# G007-12

G007-13

G007-11 Continued

Thank you for the information about the Excelerate's Northeast Port's closed loop regasification system. Section 3.3.8.3 has been revised to include additional information about Northeast Gateway.

The proposed Project has been modified since issuance of the March 2006 Revised Draft EIR. See Section 1.4.2 for a summary of Project changes. A closed loop tempered water cooling system, which recirculates water, would be used instead of a seawater cooling system, except during annual maintenance (four days for the closed loop tempered water cooling system, and four days for the Moss tanks when the inert gas generator [IGG] would be operating).

Because seawater would only be used as non-contact cooling water during these maintenance activities, the volume of seawater used would be greatly reduced. Seawater would also be used for ballast. Section 2.2.2.4 describes the proposed seawater uptakes and uses for the FSRU. Appendix D5 describes seawater intakes and discharges during Project operations, and Appendix D6 describes the closed loop water system and provides thermal plume modeling analysis of discharges from the backup seawater cooling system.

When either the backup seawater cooling system or the IGG are operating, the temperature of the discharged seawater would be elevated above ambient temperatures no more than 20°F at the point of discharge and would be 1.39°F at 300 m from the point of discharge during the worst case scenario. These thermal discharges would comply with the California Thermal Plan (see Sections 4.7.4 and 4.18.4 and Appendix D6).

Section 4.7.4 discusses uptake volumes and potential impacts of seawater uptake and discharge, including those on ichthyoplankton from intake of seawater (also see Appendix H), and those on water quality and the marine environment from thermal discharges of cooling water. Section 4.8.4 discusses measures that would be taken to minimize impacts on wetlands (Impact TerrBio-3). In addition, the BMPs (see Appendix M) would further reduce impacts on sensitive species and habitats.

G007-13 Continued

Continued

combustion vaporization ("SCV") in the regasification process. Excelerate's EBRVs will be G007-13 operating in the closed-loop regasification mode which does not use seawater as the heating medium to regasify the LNG. Considered by the marine resource management agencies as the preferred regasification mode, Excelerate went beyond the expectations of these agencies and developed an operating process for its vessels that would reduce the normal water usage of the vessels being proposed for use at its Northeast Port. All similarly sized vessels utilize seawater for its normal operations (e.g., ballast water, engine cooling, drinking water for personnel, water for hygienic purposes, etc.). As an example of the seawater intake and usage by Cabrillo, Section 2.2.2.4, page 226, beginning at line 21 of the DEIR regarding Ballast Water

"While offloading their LNG cargo, the carriers would pump ballast water into their tanks to compensate for the weight of LNG discharged to the FSRU. Each LNG carrier would offload approximately 32.5 to 51.5 million gallons (123,000 to 195,000 m) of LNG, depending on the size of the LNG carrier; therefore, the minimum quantity of LNG to be received would range from 65 million gallons (246,000 m ), the minimum volume for two carriers arriving at the FSRU per week, to 154.6 million gallons (585,000 m), the maximum volume for three carriers arriving at the FSRU per week. One gallon of LNG is equal to 0.4382 gallons of seawater. Therefore, the quantity of seawater required during offloading by each LNG carrier for ballasting would range from 14.2 to 22.6 million gallons (53,750 to 85,540 m), depending on the size of the carrier."

With at least two LNG carriers arriving at the Cabrillo Port each week, a minimum of 28.4 to 45.2 million gallons of ballast water will be withdrawn each week. Cabrillo estimates that an LNG carrier can discharge its cargo at the facility in approximately 18 to 22 hours, therefore these withdrawal amounts would be daily amounts. The DEIR does not indicate intake velocity of the ballast water through the LNG carrier sea chests therefore impacts from impingement and entrainment of marine species can not be quantified. Additionally, the FSRU will need to discharge a commensurate amount (22.6 million gallons) of ballast water as it loads LNG from

management, states:

the carriers, and then withdraw another 22.6 million gallons of ballast water during the discharging of LNG from the facility. By contrast, Excelerate's second generation EBRVs to be used at the Northeast Port will require only 1.87 million gallons of ballast water each day the vessel is moored and regasifying and discharging its cargo. For all other normal shipboard water usage, typical of vessels similar to those described by Cabrillo can utilize in excess of 50 million gallons of water per day ("mgd"). Excelerate has designed a Heat Recovery System ("HRS") within its existing and future vessels that would allow the further reduction in water intake and use by the vessel while in the closed-loop mode. Utilizing this HRS system reduced the water usage by approximately 95%, going from 56 mgd to a low of approximately 2.77 mgd for most of the days in closed-loop regasification mode.

10. Project Comparison Table 3.3-2, Page 3-29

a) References to Energy Bridge TM - Excelerate's Energy Bridge TM is a proprietary technology developed, owned, and operated exclusively by Excelerate. There are several LNG deepwater port projects currently being developed by others that propose to use onboard regasification technology similar to Excelerate's Energy Bridge TM system but they are not Energy Bridge TM. It would be more appropriate in the Alternatives Analysis section of the DEIR to refer to "on-board regasification technology" in general rather than cite Excelerate's proprietary technology.

b) **Regasification** - When operating in the closed-loop mode, the Energy Bridge <sup>TM</sup> system G007-15 uses steam-heated water from the ships boilers and circulating within the shell and tube vaporizers to warm the LNG. The table implies that the LNG is warmed through direct heating from gas burners. This is not correct.

G007-13 G007

G007-13 Continued

G007-14

Table 3.3-3 has been renamed. References to "Energy Bridge" have been deleted and replaced with "Mooring Point System." All other references to "Energy Bridge" only refer to Excelerate projects and include the trademark symbol.

G007-15

Table 3.3-3 has been revised to include this information.

- c) LNG Storage Capacity EBRVs are essentially floating storage, allowing for ratable or | G007-16 peaking delivery of natural gas to downstream markets when operating at a deepwater port. Whereas conventional LNG carriers offload from their onboard storage tanks to stationary storage tanks, EBRVs avoid this duplicative and costly second set of tanks. Just as with any other existing or proposed LNG facility, natural gas delivery from an EBRV depends on the arrival of the next loaded vessel.
- d) Compatibility with LNG Carriers Excelerate's EBRVs are uniquely designed with the capability off-loading their LNG cargo through Energy Bridge TM deepwater port facilities, dock-side natural gas receiving facilities, or in liquid form at a conventional onshore LNG facility. Excelerate is currently working with the USCG, the Society of International Gas Tanker and Terminal Operators ("SIGTTO"), and other international entities in the development of ship-to-ship transfer of LNG from conventional carriers into the EBRVs, further extending the flexibility of the EBRV vessel fleet.
- e) Tank System Table 3.3.2 implies that Excelerate has not selected its type of LNG storage tank system. At this time, Excelerate uses only membrane-type tanks due to the operational limitations the Moss Spherical tanks would have in an Energy Bridge TM application.
- f) Length of Time Unloading Cabrillo estimates approximately 18 to 22 hours for an LNG carrier to offload its cargo of LNG into the facility storage tanks and approximately 7 days to discharge the capacity of its storage tanks. Cabrillo's length of time to unload compared to Excelerate's time to unload is irrelevant if the point trying to be made is that the LNG carriers delivering to Cabrillo do not remain on site as long as the Excelerate EBRVs. In fact, the Cabrillo FSRU is always present regasifying LNG, much the same duration that an EBRV takes to deliver its regasified cargo directly into the downstream

G007-16

Thank you for the information.

### G007-17

Table 3.3-3 is intended to provide the reader with a comparison of the differences between the two systems. The type of storage tank was not used as a selection criterion to determine whether the single-point or multiple-point mooring systems would be considered as alternatives evaluated in the document.

### G007-18

As discussed in the previous comment response, the information provided in Table 3.3-3 is intended to provide the reader a basis for comparison. The table has been modified to clarify that the FSRU would be permanently moored and an LNG regasification carrier would not be. The table has been updated with information about the larger size LNG regasification vessels.

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G007-18

market. Moreover, because EBRV's are attached to a buoy for approximately a week, G007-18 the Energy Bridge TM technology results in less vessel traffic moving to and from each buoy, as compared to the arrivals and departures of LNG carriers at the FSRU that could occur as much as three times per week.

g) Number of Units Needed to Provide Continuous 800 MMcf per day - Cabrillo is | G007-19 using the capacities of the first vessels in Excelerate's fleet of EBRVs. To achieve the base load delivery rate of 800 MMcf per day, and utilizing Excelerate's existing fleet of 138,000 m3 EBRVs, a schedule of arrival and departure times to allow for a degree of overlap when two vessels will be moored to the port could be developed to ensure this rate. Excelerate's next generation vessels will have a loaded capacity of approximately 151,000 m<sup>3</sup> of LNG and the individual vessel will have the capability of a discharging natural gas at a rate of approximately 600 MMcfd in the closed-loop mode. Excelerate's Energy Bridge TM system is designed to accommodate vessels with an LNG capacity up to 250,000 m<sup>3</sup> and the ability to achieve even higher rates of vaporization.

Continued

G007-18 Continued

G007-19

Thank you for the information. Table 3.3-3 and Section 3.3.8.3 contain additional information.

Compatibility with LNG carriers   Compatibility with LNG carriers	Alternatives	Cabrillo Port FSRU	Energy Bridge		
Unit description  Permanently moored FSRU  LNG carrier with onboard regasification unit and submerged turret loading system.  Submerged combustion vaporizers with natural gas as fuel.  Submerged combustion vaporizers with natural gas as fuel.  Shell and tube heat exchanger with neat source, either sea water (open loop) or gas burner heating (closed loop).  Maximum regasification capacity  1,500 MMcf (42.5 million m³) per day of gas open loop, or 450 MMcf (12.7 million m³) per day of gas open loop, or 450 MMcf (12.7 million m³) per day of gas open loop, or 450 MMcf (12.7 million m³) per day of gas open loop, or 450 MMcf (12.7 million m³) per day of gas open loop or 450 MMcf (12.7 million m³) per day of gas open loop or 450 MMcf (12.7 million m³) per day of gas open loop or 450 MMcf (12.7 million m³) per day of gas closed loop.  Connecting and disconnecting to/from single submerged turret loading buoy  Six to seven  Length of time for unloading (days)  Compatibility with LNG carrier types  Compatibility with LNG carrier types  Can only receive carriers with regasification capacity  Two Energy Bridge type vessels on moorings at all times; one vessel nearby transiting most all of the time.  One unit and one mooring and riser system plus carriers. Surface footprint = about a 2-mile (3.2 km) radius from mooring point. Subsea footprint = about a 2-mile (3.2 km) radius from mooring system, risers, PLETs, and PLEM.  Two units plus thee mooring and Areas to Be Avoided), depending on the configuration of the buoys. Subsea area = three mooring					
Regasification  Submerged combustion vaporizers with natural gas as fuel.  Submerged combustion vaporizers with neat source, either sea water (open loop) or gas burner heating (closed loop).  Maximum regasification capacity  1,500 MMcf (42.5 million m³) per day of gas open loop, or 450 MMcf (19.5 million m³) per day of gas open loop, or 450 MMcf (12.7 million m²) per day of gas open loop, or 450 MMcf (12.7 million m²) per day of gas closed loop.  Tank system  Moss aluminum spherical  Membrane or spherical  Connecting and disconnecting toffrom single submerged turret loading buoy  Length of time for unloading (days)  Compatibility with LNG carrier types  Compatibility with LNG carrier types  Compatibility with LNG carrier types  Compatible with all LNG carrier types  Can only receive carriers with regasification capacity  FSRU and Triple-point Mooring Buoy System  Number of units needed to provide continuous 800 MMcf (22.7 MMcf per day of gas)  Environmental footprint  One unit and one mooring and riser system plus carriers. Surface footprint = about a 2-mile (3.2 km) radius from mooring point. Subsea footprint = noe mooring system, risers, PLETs, and PLEM.  Two units plus thee mooring and riser systems plus carriers. Surface area = approximately 6.5 miles (10.5 km) by 2.0 miles (3.2 km) inclusive of safety zones and Areas to Be Avoided), depending on the configuration of the buoys. Subsea area = three mooring		Permanently moored FSRU	regasification unit and submerged turret loading system.		
with natural gas as fuel.  with heat source, either sea water (open loop) or gas burner heating (closed loop).  Individual unit, either 690 MMcf (19.5 million m³) per day of gas open loop, or 450 MMcf (19.5 million m³) per day of gas open loop, or 450 MMcf (12.7 million m³) per day of gas open loop, or 450 MMcf (12.7 million m³) per day of gas closed loop.  Tank system  Moss aluminum spherical  Membrane or spherical  Connecting and disconnecting to from single submerged turret loading buoy  Length of time for unloading (days)  Compatibility with LNG carrier LNG carriers  Can only receive carriers with regasification capacity  FSRU and Triple-point Mooring Buoy System  Number of units needed to provide continuous 800  MMcf (22.7 MMcf per day of gas)  Environmental footprint  One unit and one mooring and riser system plus carriers. Surface footprint = about a 2-mile (3.2 km) radius from mooring system, risers, PLETs, and PLEM.  Two units plus thee mooring and riser systems plus carriers. Surface a footprint = one mooring system, risers, PLETs, and PLEM.  Two units plus thee mooring and riser systems plus carriers. Surface a footprint = one mooring system, risers, PLETs, and PLEM.  Two units plus thee mooring and riser systems plus carriers. Surface a footprint = one mooring system, risers, PLETs, and PLEM.		72 million gallons (272,500 m <sup>3</sup> ).	36.5 million gallons (138,000 m <sup>3</sup> )		
regasification capacity  day of gas  (19.5 million m³) per day of gas open loop, or 450 MMcf (12.7 million m³) per day of gas open loop, or 450 MMcf (12.7 million m³) per day of gas closed loop.  Tank system  Moss aluminum spherical  Membrane or spherical  Connecting and disconnecting to/from single submerged turret loading buoy  Length of time for unloading (days)  Compatibility with LNG carrier  LNG carriers  Can only receive carriers with regasification capacity  FSRU and Triple-point Mooring Buoy System  Number of units needed to provide continuous 800 MMcf (22.7 MMcf per day of gas)  Environmental footprint  One unit and one mooring and riser system plus carriers. Surface footprint = about a 2-mile (3.2 km) radius from mooring point. Subsea footprint = one mooring system, risers, PLETs, and PLEM.  Two Energy Bridge type vessels on moorings at all times; one vessel nearby transiting most all of the time.  Two units plus thee mooring and riser systems plus carriers. Surface area = approximately 6.5 miles (10.5 km) by 2.0 miles (3.2 km) inclusive of safety zones and Areas to Be Avoided), depending on the configuration of the buoys. Subsea area = three mooring	Regasification		with heat source, either sea water (open loop) or gas burner heating		
Offloading/marine operation  Side-by-side loading  Connecting and disconnecting to/from single submerged turret loading buoy  Six to seven  Compatibility with LNG carriers  Compatible with all LNG carrier types  Compatible with all LNG carrier types  Can only receive carriers with regasification capacity  Two Energy Bridge type vessels on moorings at all times; one vessel nearby transiting most all of the time.  Compatible with all LNG carrier  Two Energy Bridge type vessels on moorings at all times; one vessel nearby transiting most all of the time.  Two units plus thee mooring and riser system plus carriers. Surface footprint = about a 2-mile (3.2 km) radius from mooring point. Subsea footprint = one mooring system, risers, PLETs, and PLEM.  Two units plus thee mooring and riser systems plus carriers. Surface area = approximately 6.5 miles (10.5 km) by 2.0 miles (3.2 km) inclusive of safety zones and Areas to Be Avoided), depending on the configuration of the buoys. Subsea area = three mooring	regasification		(19.5 million m <sup>3</sup> ) per day of gas open loop, or 450 MMcf (12.7 million m <sup>3</sup> ) per day of gas closed		
to/from single submerged turret loading buoy  Length of time for unloading (days)  Compatibility with LNG carriers  Compatibility with LNG carriers  Compatible with all LNG carrier types  Can only receive carriers with regasification capacity  Two Energy Bridge type vessels on moorings at all times; one vessel nearby transiting most all of the time.  Compatibility with LNG carrier  Two Energy Bridge type vessels on moorings at all times; one vessel nearby transiting most all of the time.  Compatibility with LNG carrier  Two Energy Bridge type vessels on moorings at all times; one vessel nearby transiting most all of the time.  Two units plus thee mooring and riser systems plus carriers. Surface footprint = about a 2-mile (3.2 km) radius from mooring point. Subsea footprint = one mooring system, risers, PLETs, and PLEM.  Two units plus thee mooring and riser systems plus carriers. Surface area = approximately 6.5 miles (10.5 km) by 2.0 miles (3.2 km) inclusive of safety zones and Areas to Be Avoided), depending on the configuration of the buoys. Subsea area = three mooring	Tank system	Moss aluminum spherical	Membrane or spherical		
Compatibility with LNG carrier types  Can only receive carriers with regasification capacity  Two Energy Bridge type vessels on moorings at all times; one vessel nearby transiting most all of the time.  Can only receive carriers with regasification capacity  Two Energy Bridge type vessels on moorings at all times; one vessel nearby transiting most all of the time.  Two units plus thee mooring and riser systems plus carriers. Surface footprint = about a 2-mile (3.2 km) radius from mooring point. Subsea footprint = one mooring system, risers, PLETs, and PLEM.  Two units plus thee mooring and riser systems plus carriers. Surface area = approximately 6.5 miles (10.5 km) by 2.0 miles (3.2 km) inclusive of safety zones and Areas to Be Avoided), depending on the configuration of the buoys. Subsea area = three mooring		Side-by-side loading	to/from single submerged turret		
LNG carriers types regasification capacity  FSRU and Triple-point Mooring Buoy System  Number of units needed to provide continuous 800 MMcf (22.7 MMcf per day of gas)  Environmental footprint One unit and one mooring and riser system plus carriers. Surface footprint = about a 2-mile (3.2 km) radius from mooring point. Subsea footprint = one mooring system, risers, PLETs, and PLEM.  Two Energy Bridge type vessels on moorings at all times; one vessel nearby transiting most all of the time.  Two units plus thee mooring and riser systems plus carriers. Surface area = approximately 6.5 miles (10.5 km) by 2.0 miles (3.2 km) inclusive of safety zones and Areas to Be Avoided), depending on the configuration of the buoys. Subsea area = three mooring		One	Six to seven		
Number of units needed to provide continuous 800 MMcf (22.7 MMcf per day of gas)  Environmental footprint  One  One unit and one mooring and riser system plus carriers. Surface footprint = about a 2-mile (3.2 km) radius from mooring point. Subsea footprint = one mooring system, risers, PLETs, and PLEM.  Two Energy Bridge type vessels on moorings at all times; one vessel nearby transiting most all of the time.  Two units plus thee mooring and riser systems plus carriers. Surface area = approximately 6.5 miles (10.5 km) by 2.0 miles (3.2 km) inclusive of safety zones and Areas to Be Avoided), depending on the configuration of the buoys. Subsea area = three mooring					
needed to provide continuous 800 MMcf (22.7 MMcf per day of gas)  Environmental footprint  One unit and one mooring and riser system plus carriers. Surface footprint = about a 2-mile (3.2 km) radius from mooring point. Subsea footprint = one mooring system, risers, PLETs, and PLEM.  Two units plus thee mooring and riser systems plus carriers. Surface area = approximately 6.5 miles (10.5 km) by 2.0 miles (3.2 km) inclusive of safety zones and Areas to Be Avoided), depending on the configuration of the buoys. Subsea area = three mooring	FSRU and Triple-point Mooring Buoy System				
footprint system plus carriers. Surface footprint = about a 2-mile (3.2 km) radius from mooring point. Subsea footprint = one mooring system, risers, PLETs, and PLEM. risers systems plus carriers. Surface area = approximately 6.5 miles (10.5 km) by 2.0 miles (3.2 km) inclusive of safety zones and Areas to Be Avoided), depending on the configuration of the buoys. Subsea area = three mooring	needed to provide continuous 800 MMcf (22.7 MMcf	One	on moorings at all times; one vessel nearby transiting most all		
PLEM.	Environmental	system plus carriers. Surface footprint = about a 2-mile (3.2 km) radius from mooring point. Subsea footprint = one mooring system, risers, PLETs, and PLEM.	riser systems plus carriers. Surface area = approximately 6.5 miles (10.5 km) by 2.0 miles (3.2 km) inclusive of safety zones and Areas to Be Avoided), depending on the configuration of the buoys. Subsea area = three mooring systems, risers, PLETs, and PLEM.		
Visual impact One unit always present Two units always present					

Notes: MMcf = million cubic feet; PLETs = pipeline end terminations; PLEM = pipeline-ending manifold.

2006/G007

From: Terry Treiber [ttreiber@adnc.com] Sent: Saturday, May 06, 2006 6:29 PM To: BHPRevisedDEIR@slc.ca.gov

Subject: No to BHP Billiton's LNG Terminal!

Dear California State Land Commission--please say "no" to BHP Billiton's polluting and unnecessary LNG terminal.

V046-1

Sincerely

Teresa L. Treiber 828 Silver Gate Ave. San Diego, CA 92106 ttreiber@adnc.com

# 2006/V046

V046-1

Your statement is included in the public record and will be taken into account by decision-makers when they consider the proposed Project.

P436

2006/P436

April 19, 2006

Dwight Sanders State lands commission, 100 Howe Avenue Suite 100 South Sacramento California 95825-8202

Re: Stop Cabrillo Port LNG

Dear Mr. Sanders,

Please stop Cabrillo port LNG industrial plant from progressing any further in the permit process. California law prohibits industrial intrusion on highly scenic areas. The last remaining wild areas on the Southern California Coast will be permanently despoiled if this industrial plant is installed. In fact over 10 national parks, national recreation areas, state, city and county parks will be despoiled. This would forever impact the quality of life of the areas residents and negatively impact the millions of vistors who come to hike and enjoy the seashore. In addition, federal and state governments own studies show that this project would:

- result in both short term and long term adverse impacts to the coast and it's residents.
- Increase smog levels (tons of pollutants spewing directly upwind from our houses, beaches and hiking trails.
- contain 14 story high pollution spewing industrial towers with lines of support ships which forever will be our new horizon. This towers will be brightly lit at night being a 24 hour eye sore.
- harbor the possibility of a 14 mile wide explosive flash fire due to an accident of terrorist attack.
- be visible from all elevations in malibu from downtown Malibu all the way to Port Hueneme.
- require a "security zone" of 2.3 miles around it. (to protect from terrorism, accidents etc) which is in the same shipping channel where 10,000. container ships and oil tankers use annually.

There are many more negative impacts than the above "official" ones disclosed by the federal and state study.

PLEASE do not allow this to go forward. We, the citizens of Southern California will fight this project until it is derailed. Our money and time can be spent on projects that truly will improve the quality of life in Southern California rather than just provide an opportunity for foreign Companies to sell us gas that they and we do not need.

Sincerely

MICHAEITHOHY
13546 CHESTENHAM OR SO

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P470

2006/P470

April 19, 2006

**Dwight Sanders** State lands commission, 100 Howe Avenue Suite 100 South Sacramento California 95825-8202

Re: Stop Cabrillo Port LNG

Dear Mr. Sanders,

Please stop Cabrillo port LNG industrial plant from progressing any further in the permit process. California law prohibits industrial intrusion on highly scenic areas. The last remaining wild areas on the Southern California Coast will be permanently despoiled if this industrial plant is installed. In fact over 10 national parks, national recreation areas, state, city and county parks will be despoiled. This would forever impact the quality of life of the areas residents and negatively impact the millions of vistors who come to hike and enjoy the seashore. In addition, federal and state governments own studies show that this project would:

- result in both short term and long term adverse impacts to the coast and it's residents.
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- be visible from all elevations in malibu from downtown Malibu all the way to Port Hueneme.
- require a "security zone" of 2.3 miles around it. (to protect from terrorism, accidents etc) which is in the same shipping channel where 10,000, container ships and oil tankers use annually.

There are many more negative impacts than the above "official" ones disclosed by the federal and state study.

PLEASE do not allow this to go forward. We, the citizens of Southern California will fight this project until it is derailed. Our money and time can be spent on projects that truly will improve the quality of life in Southern California rather than just provide an opportunity for foreign Companies to sell us gas that they and we do not need.

Victor Valoler remod. 1744 1/2 Sarfield Place 1). Hollywood, Calif. 90028.

To view the responses to this letter, go to "Index--Read this First" and select "2006 Letters--Form Letter."

V246

V246-6

V246-1

2006/V246

My name is Doug VanLeuven, an active member of MEBA AFL/CIO, Chief Engineer USCG Certified Cargo Engineer LNG Operations.

I am a citizen of California where I have lived my whole life.

I support the use of LNG because I oppose nuclear plants and coal burning facilities.

I support the BHP Billiton Cabrillo Deep Water Port Project because LNG transportation has been proven to be safe. For more than 25 years LNG ships plied their trade under American flag crewed by Americans without incident. The wives and children of the officers frequently sailed with us. We believed them safer aboard an LNG tanker than walking the streets back home.

This EIR report is comprehensive in scope, professional in analysis, and addresses all reasonable concerns.

BHP Billiton has addressed air quality concerns. All support vessels will substitute natural gas burning engines instead of diesel engines.

They have addressed the concerns of the California State Lands commission and are burning natural gas to vaporize the LNG instead of using sea water.

This project can serve as an eco friendly model for future industrial projects on the California coastline.

I began my career as an LNG engineering officer in 1980. Then the issue was who had the best training to guarantee the safe transportation of a petrochemical. Today, we are concerned not only with safe and reliable transportation of LNG, but with the security of our ports and ships. There is no better way to guarantee the security of these vessels than to crew them with Americans certified by the United States Coast Guard now part of Homeland Defense.

In closing, Californians have maintained our quality of life by allowing development and insisting it be done in a way that benefits society. We should move forward with this EIR to help build a cleaner, nuclear free California for all our children.

Thank you

into account by decision-makers when they consider the proposed Project. V246-2 V246-1 Sections 4.2.7.3 and 4.3.1.5 contain information on the use of American crews and U.S.-flagged vessels. V246-2 V246-3 The Project has been modified since issuance of the March 2006 Revised Draft EIR. See Section 1.4.2 for a summary of Project changes. Section 4.6.1.3 contains revised information on Project emissions and proposed control measures. Section 4.6.4 discusses the health effects attributed to air pollutants and includes revised V246-3 impacts and mitigation measures. V246-4 V246-4 Section 2.2.2.3 discusses this topic. V246-5 Section 4.2 and Appendix C contain information on public safety. V246-5 V246-6 See the response to Comment V246-2.

Your statement is included in the public record and will be taken

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TRISH Van Bevere Scott 7036 9R

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Tanya Vaneaas 39557 Colchester Ct. Palmdale, Ca 93551 To view the responses to this letter, go to "Index--Read this First" and select "2006 Letters--Form Letter."

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Sincerely, ROBERT VANGE(15Ti Robert Vangeliste

19180 MONEREY HESPENIA CM 92345

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P472

2006/P472

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MANNIMAN / SOBEL VILLANUEVA 10600 WILXHIRE

US ANGELES CA 90024